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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/687,722

10/17/2003

Hiroaki Kojima

TIJ-34713

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06/26/2007

TEXAS INSTRUMENTS INCORPORATED

P O BOX 655474, M/S 3999

DALLAS, TX 75265

EXAMINER

ALUNKAL, THOMAS D

ART UNIT

PAPER NUMBER

2627

NOTIFICATION DATE

DELIVERY MODE

06/26/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/687,722	Applicant(s) KOJIMA, HIROAKI	
	Examiner Thomas D. Alunkal	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,10,13,14,16,19,21,23,28,29,31,32,36,37,39,41-43 and 47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,10,13,14,16,19,21,23,28,29,31,32,36,37,39,41-43 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 43 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 43 recites the limitation "The ***timing adjustment circuit*** described in Claim 10" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 10, 13-14, 16, 21, 23, 28-29, 31-32, 35-37, 39, and 42-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Kato et al. (hereafter Kato)(US 6,775,217).

Regarding claim 1, Kato discloses a timing adjustment method (see Abstract) comprising a timing adjustment method for adjusting the timing of an event, said timing adjustment of said event is performed based on the multiphase clocks (Figure 3, Element 320, *mutli-phase clock synthesizer*).

Regarding claim 2, Kato discloses wherein said event is an electrical event, which refers to at least one transition that takes place between plural electrical states (Figure 4. *Specifically, the rise and fall of pulses represent changes in electrical level*).

Regarding claim 10, Kato discloses a timing adjustment method (see Abstract) comprising: generating multiphase clock signals, with said multiphase clock signals comprising plural phase clocks of different phases that represent plural different timing adjustment quantities applied on said event (Figure 3, Element 320, *mutli-phase clock synthesizer* Column 3, lines 55-62), using said multiphase clock signals in which any one said phase clock signal from said multiphase clock signals is used, and an event change timing signal representing the changed timing of said event is changed (Column 3, lines 55-62 and Figure 5. *Specifically, any one of the phase adjusted timing signals is used*).

Regarding claim 13, Kato discloses wherein said multiphase clock generation comprising generating said multiphase clocks in synchronization with a reference signal related to said events (Figure 3, *REFERENCE CLOCK*).

Regarding claim 14, Kato discloses wherein said multiphase clock is composed of plural phase clocks with equal spacing between them (Figure 5, Elements 510,520,530, and 540).

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Regarding claim 16, Kato discloses wherein said events are events on an optical disk recording medium, which are rise events and fall events of the write pulses in the pulse width adjustment of the write pulses for writing on said optical disk recording medium, said write pulses are for determining the timing of control of output of the laser used in write on said optical disk recording medium (Figures 2 and 4. *Specifically, variations in laser power provide pits formed on the optical disc*).

Regarding claim 21, Kato discloses wherein said optical disk recording medium has a rotation control system, such as a CAV system, zone CLV system or CLV system (Column 1, lines 28-40).

Regarding claim 23, Kato discloses wherein said multiphase clocks are generated from the transmission clock of said digital transmission data and wherein an adjustment quantity input that assigns the timing adjustment quantity applied on said events is received, and selecting one said phase clock having said timing adjustment quantity corresponding to said adjustment quantity input is selected as said event change timing signal (Column 3, line 55-Column 4, line 8).

Circuit claims 28-29,31-32,35-37,39, and 42-43 are drawn to the circuit corresponding to the method of using same as claimed in claims 10,13-14,16,21, and 23. Therefore circuit claims 28-29,31-32,35-37,39, and 42-43 correspond to method claims 10,13-14,16,21, and 23, and are rejected for the same reasons of anticipation as used above.

Regarding claim 47, Kato discloses wherein the timing adjustment circuit (Figure 3) is in an optical disc recorder which is a CD-R, CD-RW, DVD-R, DVD-

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RW, DVD+R, DVD+RW or DVD-RAM device (Figures 1,2 and 4. *Figures 2 and 4 corresponding to CD-R and CD-RW, respectively*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato and in view of Official Notice.

Regarding claim 19, Kato discloses generating pulses after a timing change are generated from said event change timing signal and wherein said multiphase clock generation comprises said reference signal being related to said events (Column 4, lines 41-65). Kato does not disclose wherein the reference signal is obtained from the wobble signal of the optical disk. The Examiner is taking Official Notice that it was well known at the time of the applicant's invention to detect reference signals (corresponding to relative frequencies) from wobble signals recorded on an optical media.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide reference signals detectable from a wobble signal of the disc, motivation being to easily allow for multiple write speeds to be used concurrently with the multiple phase clocks.

Regarding claim 41, this claim contains limitations similar to those in claim 19 and is rejected over the same grounds.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hirai (US 5,574,707) discloses a pulse width control apparatus for an optical disk. Moriichi et al. (US PgPub 2001/0028618) disclose which incorporates a multiphase clock. Asano (US 6,377,528) disclose a reference mark detection circuit. Fujiwara (US 6,282,163) disclose an optical disk recording/reproducing device with multiple phase controlling means. Ogawa et al. (US 5,070,492) disclose a signal decoding apparatus and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

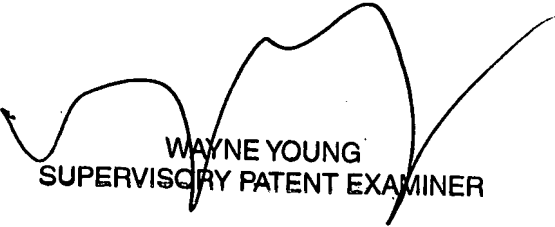
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

A handwritten signature in black ink, appearing to be 'W. Young', is located at the bottom right of the page.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Alunkal/
Examiner Art Unit 2627


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER